# WEATHER STATION INSTRUCTION MANUAL
# MODEL GARNI 560 EASY II

**GARNI**®
technology

**GARNI 560** EASY II

## PACKAGE CONTENTS

Main (receiving) unit
Wireless sensor GARNI 040H
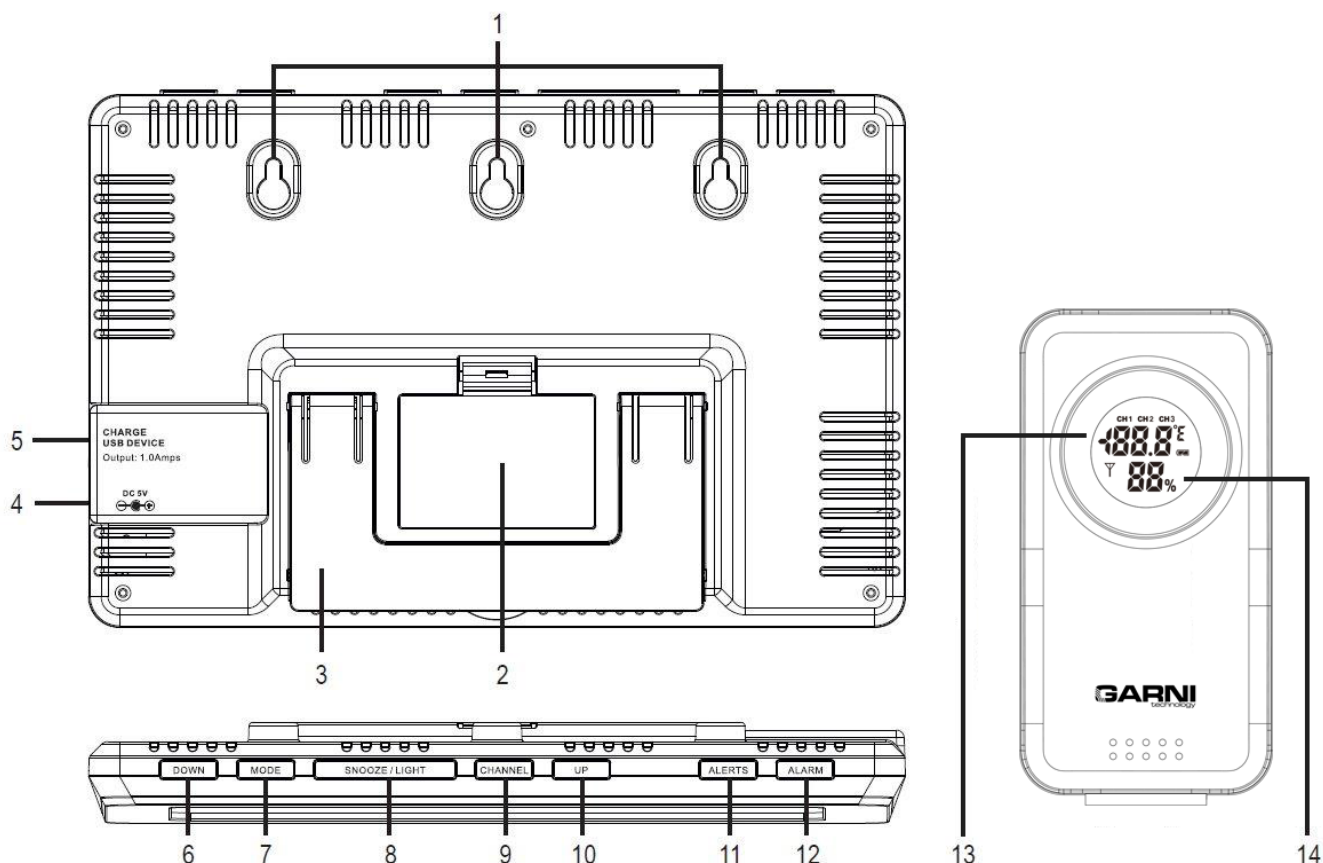AC Adapter
Instruction Manual

## DESCRIPTION

- outdoor and indoor relative humidity measurement (%)
- outdoor and indoor temperature measurement (°C or °F)
- the ability to connect up to 3 wireless sensors for temperature and relative humidity measurement at different locations
- alarm for upper and lower limits of indoor and outdoor temperature
- weather forecast icons based on barometric pressure changes
- time and date controlled by the DCF-77 radio signal with manual setting option
- 12 or 24-hour time display format
- date
- two alarm times
- snooze function can be set from 3 to 20 minutes
- USB port to charge mobile devices
- the possibility of constant display illumination
- the ability to hang or mount the main unit and the wireless sensor
- wireless sensor included
- receiving measured values from all connected wireless sensors

**Main Unit Display**
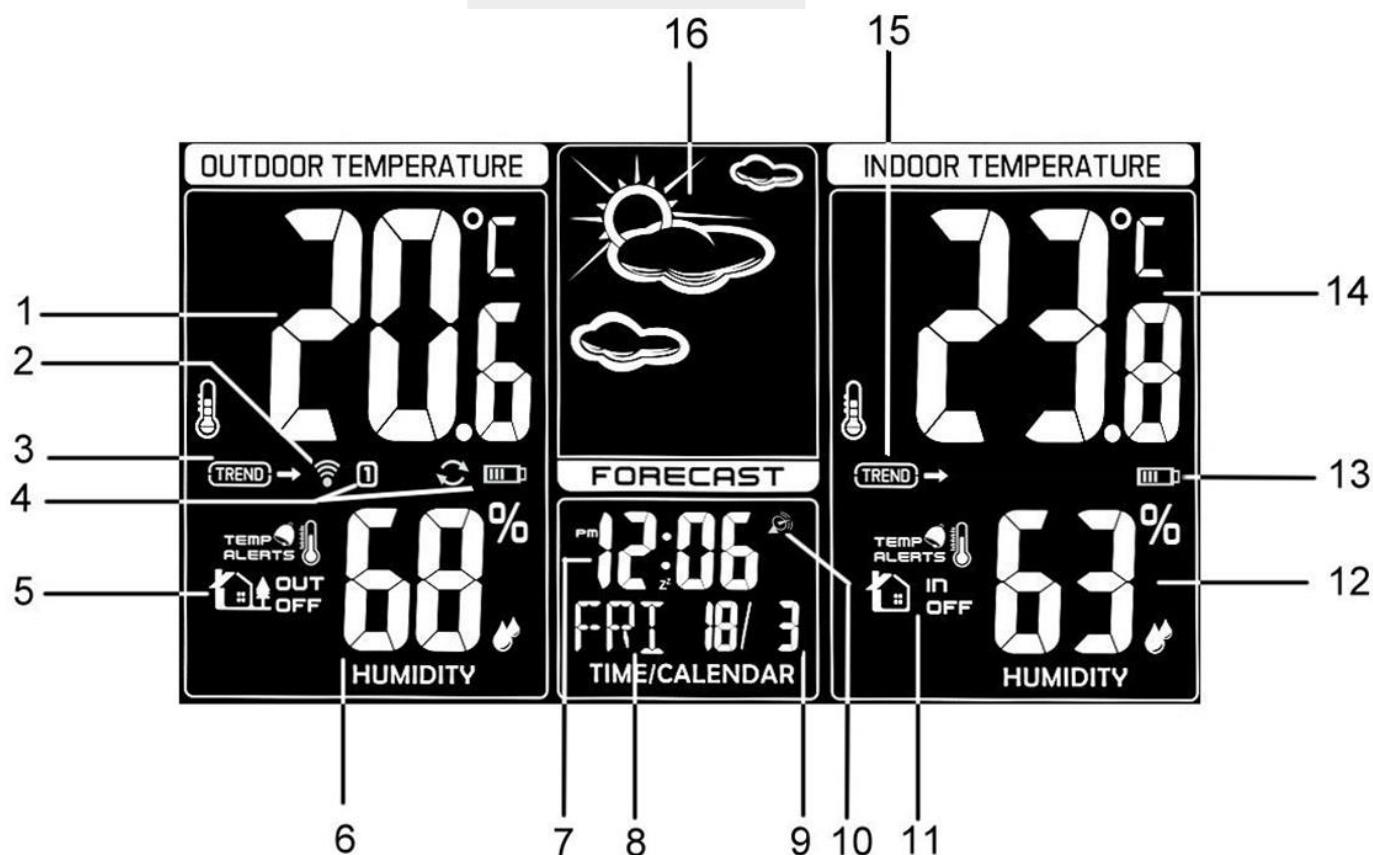
1) Outdoor temperature value
2) Wireless sensor search icon,
3) Outdoor temperature development arrow
4) Wireless sensor channel number, automatic switching of channels, discharged batteries of the wireless sensor
5) Icon for upper and lower limits of indoor and outdoor temperature
6) Relative indoor humidity value
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8) Abbreviation of the day's name
9) Date
10) DCF-77 radio signal icon
11) Icon for upper and lower limits of indoor temperature
12) Relative outdoor humidity value
13) Discharged batteries of the main unit
14) Indoor temperature value
15) Indoor temperature development arrow
16) Weather forecast icon

## Rear side and the main unit buttons, wireless sensor



1) Mounting holes
2) Battery compartment
3) Folding stand
4) Power adapter socket
5) USB charging port
6) **DOWN** button
7) **MODE** button
8) **SNOOZE/LIGHT** button

9) **CHANNEL** button
10) **UP** button
11) **ALERTS** button
12) **ALARM** button
13) No. of selected channel; outdoor temperature value; battery icon
14) Relative outdoor humidity value; signal icon

## DEVICE STARTUP

### Installing the batteries of the main unit

*Note: to avoid deleting settings, connect the AC adapter before replacing the batteries*

1) The main unit can be battery-powered (display illumination may be short-lived), or connected by an AC adapter (display illumination can be continuous).
2) Remove the battery compartment cover on the back of the main unit and insert three AAA batteries. Be mindful of the correct battery polarity. The display lights up and briefly shows all display segments.
3) Close the battery compartment

The main unit can also be powered using the AC adapter even if the batteries are inserted. Connect the AC adapter plug to the outlet on the side of the main unit and plug into the wall socket.

When the main unit is put into operation, the wireless sensor signal reception is initiated. The icon flashes on the main unit's display 📶. Scanning for the wireless sensor signal will take 3 minutes, after which icon 📶 turns off. After successful signal reception, the measured values are shown on the display.

If the wireless sensor signal is lost, hold the **CHANNEL** button on the main unit for 3 seconds. The main unit initiates re-scanning for the wireless sensor signal, icon 📶 flashes.

## Installation of wireless sensor batteries

***Note:*** *to avoid damage to the weather station, be sure to check the correct polarity of the batteries. For the main unit, use high quality alkaline batteries, and for the wireless sensor we recommend lithium batteries that are resistant to frost. Do not use rechargeable batteries.*

1) Remove the battery compartment cover on the back of the wireless sensor.
2) When using multiple wireless sensors, make sure that a different channel is set on each sensor using the switching button for the channel selection (1, 2 or 3) located in the battery compartment.
3) Insert two AAA batteries. Signal transmission is indicated by the icon on the display that flashes once in 57 seconds.
4) Close the battery compartment

Once the main unit is connected to the wireless sensor, place the main unit and the wireless sensor at the desired location within the wireless sensor signal range.

If the batteries are discharged, the icon 🔋 will appear on the display of the wireless sensor and the icon 🔋 on the main unit display in the outdoor section.
The connection must always be re-established after replacing the batteries.

## Placement

### Placement of the wireless sensor
To avoid measurement distortion, place the wireless sensor away from direct sunlight. We recommend placement outside on the north wall. Obstacles such as walls, concrete, metal structures and large objects reduce signal reach. For optimal signal transmission, place the wireless sensor vertically.
Obstacles (walls, trees) and other electrical devices (TVs, monitors, etc.) may impact the signal range.
You can hang the wireless sensor on a mounting hole or stand it up using the stand.

### Main unit placement
Select a spot for the main unit away from direct sunlight. Before installation, test the connection with the wireless sensor. If there is a signal reception problem, select a different location. The back of the main unit has a hole for hanging. You can also place the main unit on a flat surface using a folding stand.

## TIME AND DATE CONTROLLED BY THE DCF-77 RADIO SIGNAL

The weather station is equipped with a DCF-77 signal receiver for time and data management, for signal transmitted from Frankfurt am Main, Germany with a reach of about 1500 km. Outside of this range, it is possible to set time and date manually. Time and date setting take place every day.
If the time and date are set manually, they will be reset upon reception of the DCF-77 signal.

After inserting the batteries into the main unit, all segments of the display will appear for about 3 seconds, and then the main unit will receive the wireless sensor signal. When the connection is established, the main unit goes into the DCF-77 radio signal reception mode for time setup. The icon 🗼 flashes during the search.

If the signal is not received, the DCF-77 signal reception icon will not appear on the display. If the signal is successfully received, the reception icon 📡 will be permanently shown on the display. DST means daylight saving time.

Search for the DCF-77 signal is done daily at 01:00, 02:00 and 03:00 a.m. If the signal is not successfully received at 03:00 a.m., the main unit will search for it at 04:00 and 05:00 a.m. Another search attempt occurs the next day at the same time.

To start the search manually, press and hold the **DOWN** button for 3 seconds. To exit the search, briefly press the **DOWN** button. The other buttons are inoperative during the search, except the **SNOOZE/LIGHT** buttons.

*Note: the DCF-77 signal receiver for time and date setup is integrated into the main unit, therefore it is necessary to place the main unit in a way that guarantees good quality reception of the DCF-77 signal. Reception of the DCF-77 signal is indicated by the icon on the main unit display.*

## THE WEATHER STATION SETUP

To enter the setup mode, press and hold mode the **MODE** button down in the main screen for 3 seconds.

| button | setting | steps |
|---|---|---|
| press **MODE** for 3 sec. | entering the setup mode → setting the time zone | Press the **UP** or **DOWN** button to change the time zone (the setting for the Czech Republic and Slovakia is 00) |
| press **MODE** | setting the clock | Press the **UP** button to increase value or **DOWN** to reduce the set value |
| press **MODE** | setting the minute | Press the **UP** button to increase value or **DOWN** to reduce the set value |
| press **MODE** | setting the year | Press the **UP** button to increase value or **DOWN** to reduce the set value |
| press **MODE** | setting the month | Press the **UP** button to increase value or **DOWN** to reduce the set value |
| press **MODE** | setting the day | Press the **UP** button to increase value or **DOWN** to reduce the set value |
| press **MODE** | language settings | Press the **UP** or **DOWN** button to select the desired language |
| press **MODE** | exit the setup mode | |

*Note: By holding down the **UP** or **DOWN** button when setting a given value, you will increase or decrease this value faster.*
*If no button is pressed for 8 seconds, the last set value will be stored and the setting mode will end.*
*Languages that can be set: ENG English, GER German, FRE French, ITA Italian, DUT Dutch, SPA Spanish, DAN Danish.*

## Abbreviations of the day's name

| | **ENG** | **GER** | **FRE** | **ITA** | **DUT** | **SPA** | **DAN** |
|---|---|---|---|---|---|---|---|
| Monday | MON | MON | LUN | LUN | MAA | LUN | MAN |
| Tuesday | TUE | DIE | MAR | MSR | DIN | MAR | TIR |
| Wednesday | WED | MIT | MER | MER | WOE | MIE | ONS |
| Thursday | THU | DON | JEU | GIO | DON | JUE | TOR |
| Friday | FRI | FRE | VEN | VEN | VRI | VIE | FRE |
| Saturday | SAT | SAM | SAM | SAD | ZAT | SAD | LOR |
| Sunday | SUN | SON | DIM | DOM | ZON | DOM | SON |

## Setting a 12 or 24 hour time display

To select the time display in 12-hour or 24-hour format, press the **DOWN** button in basic view mode. If the 12-hour format is selected, the PM indicator will be displayed next to the time from 12:00 p.m. until 11:59 p.m.

## Temperature units

To select the display of the measured temperature in degrees Celsius °C or Fahrenheit °F, press the **UP** button in basic view mode.

## Switching between wireless sensor channels

If multiple wireless sensors are paired with the main unit, press the **CHANNEL** button to display the measured temperature and relative humidity values of individual wireless sensors.
If a double circular arrow is displayed, the measured values of all connected wireless sensors will gradually be displayed on the main unit display.

## Display backlight

The main unit allows you to adjust the display backlight intensity. To adjust it, press the **SNOOZE/LIGHT** button in the basic display mode.
The display backlight has two levels of brightness and a turn-off option.
Only short-time backlighting for 8 s and two levels of brightness can be used with battery power. The main unit is equipped with a sound sensor, and when powered by batteries only, the display can be illuminated by sound, for example, tapping, clapping, etc.

## Setting the alarm time

The weather station has the option to set two alarm times. In the basic display, select alarm time 1 by pressing the **MODE** button (AL 1, default setting at 6:00 a.m.) or alarm time 2 (AL 2, default setting 0:00 a.m.). Then press the **MODE** button again and hold for 3 seconds. The hour digits begin to flash.
Use the **UP** or **DOWN** buttons to set the desired alarm hour and confirm by pressing **MODE**.
The minute digits begin to flash. Use the **UP** or **DOWN** buttons to set the desired alarm minute.
Confirm the settings by pressing **MODE**.
If no button is pressed for 8 s during setup, the display will change to the basic display.

## Snooze function

When the alarm signal is activated at the set time, press the **SNOOZE/LIGHT** button to interrupt and postpone the alarm to a later time. The snooze time can be set from 3 to 20 minutes. Default setting is 5 minutes.
To set the snooze time, press **SNOOZE/LIGHT** and hold for 3 s. The Zz symbol will appear in place of the time display, and the digit 05 (the default 5-minute snooze setting) will flash.
use the **UP** or **DOWN** buttons to set the desired snooze minute within the range of 3.
to 20 minutes and confirm by pressing **MODE**.
If no button is pressed for 8 s during setup, the display will change to the basic display.

## Turn on the alarm clock

In the basic display mode, press **ALARM**. Press one time to turn on alarm clock1, twice
to turn on alarm clock 2, three times to turn on alarm clocks 1 and 2, and switch off the alarm clock by pressing the fourth time. Icons for respective alarms AL1 and AL2 are always shown on the display

## Turning off the alarm signal

When the alarm signal is activated at the set time, you can activate the snooze function by pressing **SNOOZE/LIGHT**. The Zz symbol will flash on the display. The alarm signal will be re-activated after the set time.

To exit the snooze function, press any other button. If you don't want to use the Snooze function, press any button except **SNOOZE/LIGHT** to switch off the alarm signal.
If no button is pressed, the alarm signal will be turned off automatically after 2 minutes.

## Setting alarm for upper and lower temperature limits

The weather station has the option to set the upper and lower limits of the indoor and outdoor temperature. In the basic display mode, press **ALERTS**.

| 1 push | display of the upper limit (HI) of the outdoor temperature |
|---|---|
| 2 pushes | display of the lower limit (LO) of the outdoor temperature |
| 3 pushes | display of the upper limit (HI) of the indoor temperature |
| 4 pushes | display of the lower limit (LO) of the indoor temperature |
| 5 pushes | return to basic display |

### Turn the alarm on/off

When the upper or lower temperature limits are displayed, press the UP or DOWN button to turn the alarm on or off. The on or off mode of the appropriate upper or lower temperature alarm will be indicated on the

display by the **OFF** symbol or the upper limit alarm **HI** 🔔 , or the lower limit **LO** 🔔 when they are on

### Setting values for upper and lower temperature limits

In the basic display, press **ALERTS** and hold it for 3 s. The upper limit of the outdoor temperature will flash. Use the **UP** or **DOWN** buttons to set the desired value. By pressing
and holding these buttons the value will change more quickly. To confirm the setting, press **ALERTS**. The value of the lower outdoor temperature limit will flash. Set the desired value in the same way. The setup procedure is
- upper limit of outdoor (OUT) temperature (HI) – maximum 70°C
- lower limit of outdoor (OUT) temperature (LO) – minimum -40°C
- upper limit of indoor (IN) temperature (HI) – maximum 50°C
- lower limit of indoor (IN) temperature (LO) – minimum 0°C

If no button is pressed for 8 s during setup, the display will change to the basic display.
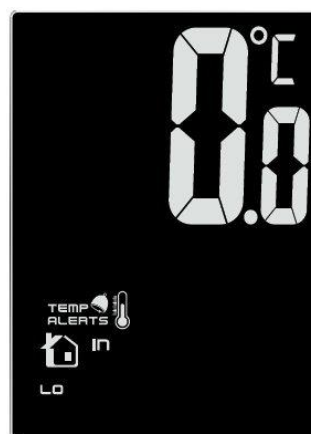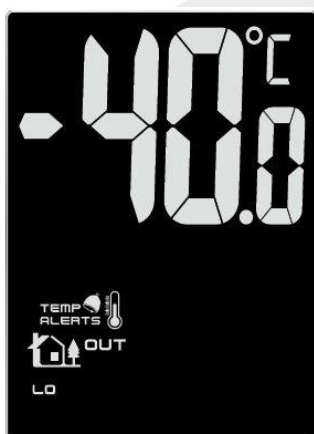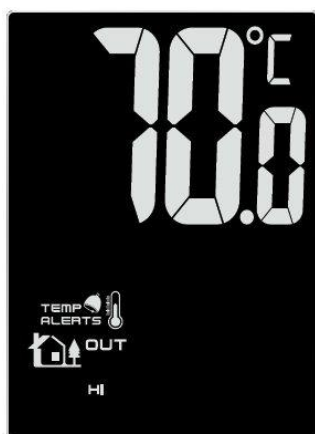


upp. limit of outdoor temp.    low. limit of outdoor temp.    upp. limit of indoor temp.    low.limit of indoor temp.

### Alarm activation

Reaching the set temperature limit will be signaled by an acoustic signal for about 5 s, with the

corresponding **HI** 🔔 , or **LO** 🔔 icon flashing on the display.
Press any button to turn off the acoustic signal

***Note:*** *- if the measured temperature is outside the measuring range, HH or LL will appear on the display*
*- if multiple wireless sensors are used, then the upper and lower temperature alarm can be set for each sensor separately. Select the sensor with the **CHANNEL** button*

## TEMPERATURE DEVELOPMENT ARROW

The weather station displays arrows for indoor and outdoor temperature, namely an increase, a steady state, or a decrease compared to previous measurements.

## Charging your mobile device

The weather station has a USB port for the charging of mobile devices. You can only charge your mobile device if the weather station is powered by an AC adapter.
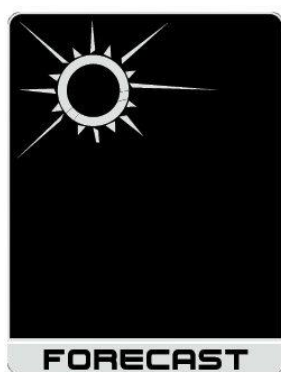Charging begins automatically when the mobile device is connected. Watch the charging process and disconnect the cable from the USB port as soon as the mobile device is charged.
**Note:** The USB port delivers a maximum charging current of 1000 mA.
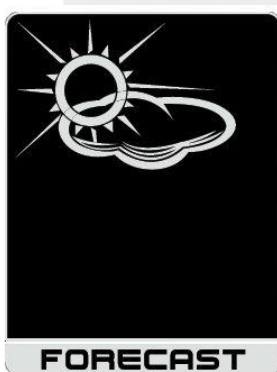
## WEATHER FORECAST

The forecast is based on a change in barometric pressure; it generally applies that weather improves if the pressure rises, and vice versa. The weather forecast is valid for the 30-50 km range with probability of 70 to 75%
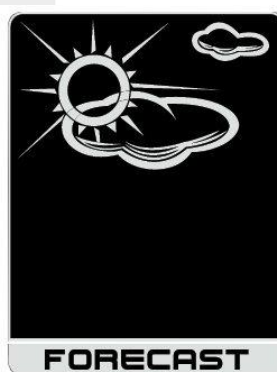
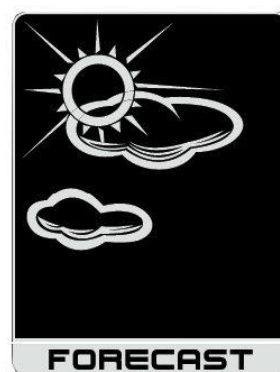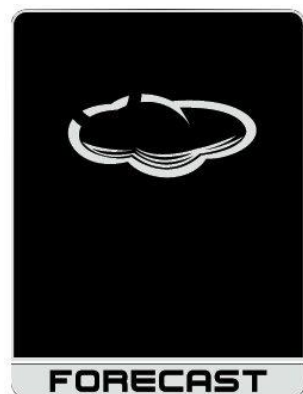The weather forecast is shown with 13 icons in 6 levels - clear, partly cloudy, cloudy, rain, thunder and snowfall.
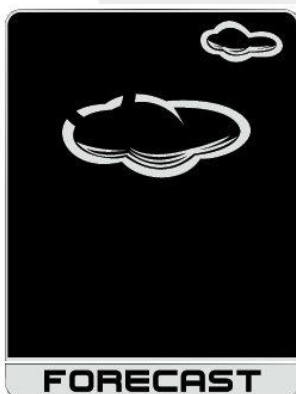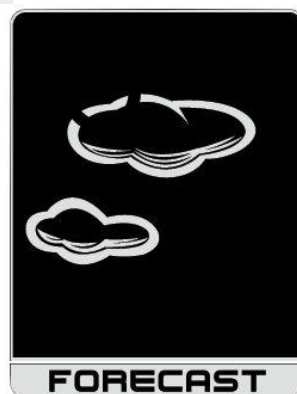
clear

almost clear

semi-clear

partly cloudy

cloudy

partly overcast

overcast

| light rain | rain | scattered thunderstorms | thunderstorms |



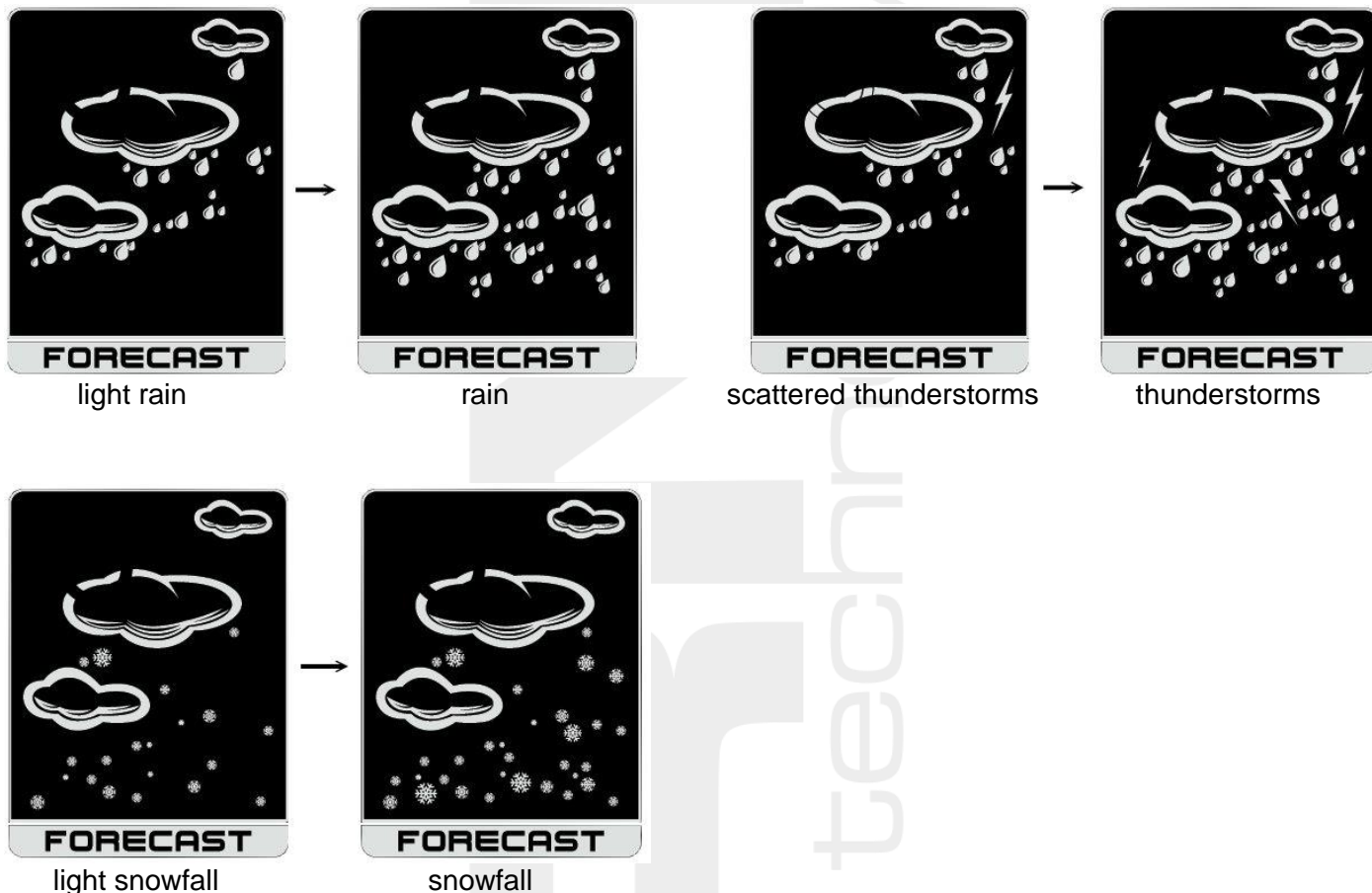| light snowfall | snowfall |

*Note: the snow icon will appear instead of the rainfall or storm icon if the outdoor temperature is lower than 0°C.*

## LOW BATTERY INDICATIONS

Icon ▮▮▮▮▯ shown on the main unit display for the outdoor temperature and relative humidity indicates low batteries in the wireless sensor, and for internal temperature and relative humidity values it indicates low batteries in the main unit. It is necessary to replace the batteries with new ones.

## TROUBLESHOOTING

**problem / solution**

| | |
|---|---|
| connection failure between the main unit and the wireless sensor | shorten the distance between the main unit and the wireless sensor, or change their placement |
| metal structures, frames, etc. between the main unit and the wireless sensor shorten the signal range | place the main unit and the wireless sensor so as to have as few obstacles as possible between them |
| the main unit or the wireless sensor are located near other electrical equipment | place the main unit and the wireless sensor further away from other el. equipment to avoid signal interference |
| the LCD display has a small contrast | replace the batteries |
| temperature measured by the wireless sensor is too high | place the sensor away from direct sunlight and away from heating |

## SAFETY INFORMATION

• Do not expose the unit to excessive force, impact, dust, temperature or humidity
• Do not cover the ventilation holes with any objects such as newspapers, curtains, etc.
• Never immerse the device in water. If you spill liquid on the device, dry it immediately
  with a lint-free cloth
• Do not clean the device with harsh or corrosive materials
• Do not manipulate the internal components of the device; otherwise, you will lose the warranty
• Use only new batteries. Do not mix old and new batteries
• Do not charge the batteries. Keep the station and its parts away from children
• Do not dispose of old batteries in unsorted municipal waste, but at designated locations
• Follow these instructions to dispose of this product
• Use only accessories specified by the manufacturer
• Do not interfere with the internal circuits of the device, or you may lose the warranty
• Technical specifications may change without prior notice

## TECHNICAL PARAMETERS

### Main unit

| | |
|---|---|
| Power supply: | AC adapter 100-240 V, 50/60 Hz, 0.3 A / 5 V, 1.2 A, 3 x AAA 1.5 V battery |
| Temperature measurement range: | 0°C to +50°C |
| Measuring accuracy: | +/- 1°C |
| Accuracy: | 0.1°C |
| Humidity measurement range: | 20% to 95% |
| Measuring accuracy: | +/- 5% |
| Accuracy: | 1% |
| Dimensions: | 212 x 139 x 26 mm |

### Wireless sensor GARNI 040H

| | |
|---|---|
| Power supply: | 2 x AAA 1.5 V batteries |
| Temperature measurement range: | -30°C to +60°C |
| Measuring accuracy: | +/- 1°C from 0°C to 50°C; +/- 2°C for other range |
| Accuracy: | 0.1°C |
| Humidity measurement range: | 20% to 95% |
| Measuring accuracy: | +/- 5% |
| Accuracy: | 1% |
| Transmission frequency: | 433 MHz |
| Maximum RF power: | 7 dBm (5 mW) |
| Data transfer interval: | 57, 67, 79 s (depending on selected channel) |
| Coverage: | IPX3 |
| Space range: | up to 40 m in open space |
| Dimensions: | 89 x 45 x 27 mm |

GARNI technology a.s. declares that the type of radio device - weather station model GARNI 560 EASY II - is in compliance with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available on the following website: www.garni-meteo.cz

*The instruction manual translated, edited, and processed by Ondřej Gajda for GARNI technology a.s.*
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**Version 1.2**